

What Is Claimed Is:

1. A display device, comprising:

a display panel having a display surface for images and an outer side face adjacent to said display surface;

5 a housing containing said display panel and having an inner surface opposed to said outer side face of said display panel; and

an antenna located between said outer side face of said display panel and said inner surface of said housing;

10 wherein said antenna includes a radiator portion provided at a predetermined distance from a conductive material portion of said display panel and/or said housing and a ground portion connected to said portions made of conductive material.

15 2. The display device according to Claim 1, further comprising:

20 a rib formed on the outer portion of said housing so that it projects approximate vertically to said display surface of said display panel; and

a frame filling a space between said housing and said display panel wherein said antenna is sandwiched between said rib and said frame.

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3. The display device according to Claim 1, wherein said antenna is a plate type slot antenna or an inverted-F type antenna.

5 4. The display device according to Claim 1, wherein said radiator portion of said antenna is located at a predetermined distance from said portions made of conductive material in a direction orthogonal to said display surface of said display panel.

10 5. The display device according to Claim 1, wherein said radiator portion of said antenna is located at a predetermined distance from said portions made of conductive material in a direction parallel to said display surface of said display panel.

15 6. A computer terminal which is capable of opening and closing, comprising:

a first housing with a built-in display panel; and

20 a second housing rotatably connected to one end of said first housing wherein said first housing has a rib on its outer portion which projects from the side opposed to said second housing wherein said rib contains an antenna which transmits and receives radio signals for communicating data

25 between said computer terminal and outside.

7. The computer terminal according to Claim 6, wherein
said second housing has, at a location corresponding to
said rib of said first housing, a recess for receiving said
rib when said first housing and said second housing are
closed.

8. The computer terminal according to Claim 6, wherein
said antenna is formed to be located on almost the top of
said computer terminal when said first housing is opened to
be in an upright position with respect to said second
housing.

9. The computer terminal according to Claim 6, wherein
said antenna has a radiator portion which transmits and
receives radio signals, provided at a distance larger than
a dimension determined from the wavelength of radio signals
to be transmitted and received by said antenna, from
portions of said display panel and said first housing that
are made of conductive material.

10. A computer terminal, comprising:
a display panel having a display surface for images and
an outer side face adjacent to said display surface;

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a housing made of conductive material and having an inner surface opposed to said outer side face of said display panel for containing said display panel;

a control unit controlling said display panel; and

5 an antenna transmitting radio signals to receive radio signals from outside and transferring signals based on said radio signals between said control unit wherein said antenna is located between said outer side face of said display panel and said inner surface of said housing and is electrically grounded to said housing.

11. The computer terminal according to Claim 10, further comprising:

another housing rotatably connected to said housing;

15 and

a hinge unit made of conductive material and rotatably connecting said housing and said another housing wherein said antenna is grounded to said housing via said hinge unit.

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12. The computer terminal according to Claim 10, wherein one end of a ground line is connected to said antenna and the other end of said ground line is connected to a ground made of conductive material.

13. The computer terminal according to Claim 10, wherein said antenna has a radiator portion provided at a predetermined distance from said housing and the frame of said display panel wherein said housing has a cut-out formed to be at a predetermined distance from said radiator portion and said cut-out has a cover made of non-conductive material to fill said cut-out.

14. The computer terminal according to Claim 13, wherein a rib is formed on the outer portion to project toward said display surface of said display panel and said rib is provided with said cut-out and said cover.

15. An antenna mounted on a display device comprising:

a display panel, a first ground, and a second ground wherein said antenna includes a radiator portion transmitting/receiving radio signals and having a feeder connected thereto at a predetermined location in its longitudinal direction, and a ground portion connected to said first ground and said second ground wherein said ground portion is in electrically connected with said first ground via a ground line connected at a location corresponding to said predetermined location of said radiator portion and in

electrically connected with said second ground via a support member supporting said display panel.

5 16. The antenna according to Claim 15, wherein the housing of said display device is formed of conductive material wherein said support member is connected to the housing of said display device.

10 17. The antenna according to Claim 15, wherein said ground portion is fastened to said support member with a fastening member.

15 18. The antenna according to Claim 15, wherein said radiator portion is provided at a predetermined distance from portions of said display device that are made of conductive material.

20 19. An integrated antenna arrangement comprising:
a conductive RF shielding foil disposed on the back of an electronic display having a hole; and
a feed portion extending partially across the hole forming a slot antenna.

20. The antenna arrangement of claim 19, further comprising
a means for conducting a signal comprising a first component
for conducting the signal connected to the feed portion and
a second component for grounding the conducting means
connected to the RF foil opposite the feed portion.

21. The antenna arrangement of claim 20, wherein the means
for conducting the signal is a coaxial cable having an inner
conductor connected to the feed portion and an outer
conductor connected to the RF foil opposite the feed
portion.

22. The antenna arrangement of claim 19, wherein an
impedance match is achieved by positioning a feed conductor
at a midpoint of the length of the antenna arrangement for
increasing impedance and towards an end of the length for
decreasing the impedance.

23. An integrated antenna arrangement comprising:
a conductive RF shielding foil disposed on the back of
an electronic display having a notch; and
a feed portion extending partially across the notch
forming an inverted-F antenna.

24. The antenna arrangement of claim 23, further comprising a means for conducting a signal comprising a first component for conducting the signal connected to the feed portion and a second component for grounding the conducting means connected to the RF foil opposite the feed portion.

25. The antenna arrangement of claim 24, wherein the means for conducting the signal is a coaxial cable having an inner conductor connected to the feed portion and an outer conductor connected to the RF foil opposite the feed portion.

26. The antenna arrangement of claim 23, wherein an impedance match is achieved by positioning a feed conductor at an open end of the length of the antenna arrangement for increasing impedance and towards a closed end of the length for decreasing the impedance.